



\*\*\*phase-out type\*\*\* power controller current range 20 A / 40 °C 400 ... 600 V / 24 V AC/DC with partial load monitoring for semiconductor relay/contactors

|                                                                                                                                                |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| product brand name                                                                                                                             | SIRIUS                                    |
| product designation                                                                                                                            | power controller                          |
| product type designation                                                                                                                       | 3RF29                                     |
| manufacturer's article number                                                                                                                  |                                           |
| <ul style="list-style-type: none"> <li>_1 of the accessories that can be ordered</li> </ul>                                                    | <a href="#">3RF2900-0RA88</a>             |
| product designation                                                                                                                            |                                           |
| <ul style="list-style-type: none"> <li>_1 of the accessories that can be ordered</li> <li>_2 of the accessories that can be ordered</li> </ul> | sealable end cover<br>input reactor / 1AC |

| General technical data                                                               |                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product function                                                                     | for 3RF21/23 solid-state relays/solid-state contactors                                                                                                                                                                                                                                                                                        |
| power loss [W] for rated value of the current                                        |                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>without load current share typical</li> </ul> | 1 W                                                                                                                                                                                                                                                                                                                                           |
| insulation voltage rated value                                                       | 600 V                                                                                                                                                                                                                                                                                                                                         |
| degree of pollution                                                                  | 3                                                                                                                                                                                                                                                                                                                                             |
| surge voltage resistance of main circuit rated value                                 | 2.5 kV                                                                                                                                                                                                                                                                                                                                        |
| protection class IP                                                                  | IP20                                                                                                                                                                                                                                                                                                                                          |
| protection class IP on the front according to IEC 60529                              | IP20                                                                                                                                                                                                                                                                                                                                          |
| shock resistance according to IEC 60068-2-27                                         | 15 g / 11 ms                                                                                                                                                                                                                                                                                                                                  |
| vibration resistance according to IEC 60068-2-6                                      | 2 g                                                                                                                                                                                                                                                                                                                                           |
| reference code according to IEC 81346-2                                              | K                                                                                                                                                                                                                                                                                                                                             |
| Substance Prohibitance (day/month/year)                                              | 05/01/2012                                                                                                                                                                                                                                                                                                                                    |
| SVHC substance name                                                                  | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) CAS-No. 3147-75-9<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| Net Weight                                                                           | 0.148 kg                                                                                                                                                                                                                                                                                                                                      |

| Main circuit                                                                                         |                                |
|------------------------------------------------------------------------------------------------------|--------------------------------|
| number of poles for main current circuit                                                             | 0                              |
| number of NO contacts for main contacts                                                              | 0                              |
| number of NC contacts for main contacts                                                              | 0                              |
| operating voltage at AC                                                                              |                                |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul> | 400 ... 600 V<br>400 ... 600 V |
| operating frequency rated value                                                                      | 50 ... 60 Hz                   |
| relative symmetrical tolerance of the operating frequency                                            | 10 %                           |
| operating range relative to the operating voltage at AC                                              |                                |
| <ul style="list-style-type: none"> <li>at 50 Hz</li> </ul>                                           | 340 ... 660 V                  |

|                                                                                         |                                                  |
|-----------------------------------------------------------------------------------------|--------------------------------------------------|
| • at 60 Hz                                                                              | 340 ... 660 V                                    |
| <b>operational current</b>                                                              |                                                  |
| • at AC-51 rated value                                                                  | 20 A                                             |
| <b>derating temperature</b>                                                             | 40 °C                                            |
| <b>teach range current initial value</b>                                                | 0.65 A                                           |
| <b>teach range current full-scale value</b>                                             | 20 A                                             |
| <b>partial load for load monitoring</b>                                                 | 0.65 A                                           |
| <b>Control circuit/ Control</b>                                                         |                                                  |
| <b>type of voltage</b>                                                                  | AC/DC                                            |
| <b>control supply voltage at AC</b>                                                     |                                                  |
| • at 50 Hz rated value                                                                  | 20.5 ... 26.5 V                                  |
| • at 60 Hz rated value                                                                  | 20.5 ... 26.5 V                                  |
| <b>control supply voltage at AC</b>                                                     |                                                  |
| • at 50 Hz full-scale value for signal<0> recognition                                   | 5 V                                              |
| • at 60 Hz full-scale value for signal<0> recognition                                   | 5 V                                              |
| <b>control supply voltage at DC rated value</b>                                         | 18 ... 30 V                                      |
| control supply voltage at DC full-scale value for signal<0> recognition                 | 5 V                                              |
| <b>supply voltage frequency for auxiliary and control circuit rated value</b>           | 50 ... 60 Hz                                     |
| <b>symmetrical line frequency tolerance</b>                                             | 5 Hz                                             |
| <b>control current at minimum control supply voltage</b>                                |                                                  |
| • at AC                                                                                 | 2 mA                                             |
| • at DC                                                                                 | 2 mA                                             |
| control current at AC rated value                                                       | 40 mA                                            |
| control current at DC rated value                                                       | 40 mA                                            |
| <b>Auxiliary circuit</b>                                                                |                                                  |
| <b>number of NC contacts for auxiliary contacts</b>                                     | 1                                                |
| <b>number of NO contacts for auxiliary contacts</b>                                     | 1                                                |
| number of CO contacts for auxiliary contacts                                            | 0                                                |
| <b>Installation/ mounting/ dimensions</b>                                               |                                                  |
| fastening method side-by-side mounting                                                  | Yes                                              |
| <b>fastening method</b>                                                                 | clip-on                                          |
| <b>height</b>                                                                           | 111.5 mm                                         |
| <b>width</b>                                                                            | 45 mm                                            |
| <b>depth</b>                                                                            | 69.5 mm                                          |
| <b>Connections/ Terminals</b>                                                           |                                                  |
| <b>type of electrical connection</b>                                                    |                                                  |
| • for auxiliary and control circuit                                                     | screw-type terminals                             |
| <b>type of connectable conductor cross-sections</b>                                     |                                                  |
| • for auxiliary and control contacts                                                    |                                                  |
| — solid                                                                                 | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1 mm²)         |
| — finely stranded with core end processing                                              | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1 mm²)         |
| — finely stranded without core end processing                                           | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1 mm²)         |
| • for AWG cables for auxiliary and control contacts                                     | 1x (20 ... 12)                                   |
| tightening torque for auxiliary and control contacts with screw-type terminals          | 0.5 ... 0.6 N·m                                  |
| tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals | 4.5 ... 5.3 lbf·in                               |
| design of the thread of the connection screw of the auxiliary and control contacts      | M3                                               |
| stripped length of the cable for auxiliary and control contacts                         | 7 mm                                             |
| <b>Electrical Safety</b>                                                                |                                                  |
| <b>touch protection on the front according to IEC 60529</b>                             | finger-safe, for vertical contact from the front |
| <b>Ambient conditions</b>                                                               |                                                  |
| installation altitude at height above sea level maximum                                 | 1 000 m                                          |
| <b>ambient temperature</b>                                                              |                                                  |
| • during operation                                                                      | -25 ... +60 °C                                   |
| • during storage                                                                        | -55 ... +80 °C                                   |
| <b>Electromagnetic compatibility</b>                                                    |                                                  |

|                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>conducted interference</b> <ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul> | 2 kV / 5 kHz, behavior criterion 2<br>2 kV, behavior criterion 2<br>1 kV, behavior criterion 2<br><br>140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1 |
| <b>electrostatic discharge according to IEC 61000-4-2</b>                                                                                                                                                                                                                                                                                 | 4 kV contact discharging / 8 kV air discharging, behavior criterion 2                                                                                                       |
| <b>conducted HF interference emissions according to CISPR11</b>                                                                                                                                                                                                                                                                           | Class A for industrial environment                                                                                                                                          |
| <b>field-bound HF interference emission according to CISPR11</b>                                                                                                                                                                                                                                                                          | Class B for the domestic, business and commercial environments                                                                                                              |

#### Approvals Certificates

|             |                          |
|-------------|--------------------------|
| Environment | General Product Approval |
|-------------|--------------------------|

[Environmental Conformations](#)



|     |                   |       |
|-----|-------------------|-------|
| EMV | Test Certificates | other |
|-----|-------------------|-------|



[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Confirmation](#)



#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2920-0KA16>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2920-0KA16>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2920-0KA16>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2920-0KA16&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2920-0KA16&lang=en)



